

US EPA ARCHIVE DOCUMENT



File No.: 13580-C

Date: June 8, 2011

Mr. Stephen Hoffman  
US Environmental Protection Agency (5304P)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Subject: Carolina Power & Light Co. d/b/a Progress Energy Carolinas, Inc. (Progress Energy)  
Weatherspoon Steam Electric Plant Ash Pond Embankment  
Comments on DRAFT Coal Combustion Residue Impoundment Dam Assessment Report

Dear Mr. Hoffman:

Thank you for the opportunity to review and provide comments on the subject report. As you may recall, the coal fired generation units at this facility are scheduled to be retired by December 2011. At that time, wastewater will no longer be sent to the coal combustion residue impoundment (also known as ash pond) for treatment. Plans are currently being developed to identify steps necessary to adequately close the ash pond after it is no longer used. The following comments are offered for consideration and inclusion in the final report.

#### **INTRODUCTION, SUMMARY CONCLUSIONS AND RECOMMENDATIONS**

- (1) Page ii, second paragraph, second sentence  
The sentence says that Dewberry "found the supporting technical documentation inadequate." However, the referenced Section 1.1.3 indicates that the supporting technical documentation is **adequate**. Please correct the word in this sentence to read "adequate".

#### **PART 1.0 CONCLUSIONS AND RECOMMENDATIONS**

- (2) Page 1-1, Section 1.1.1  
The last sentence indicates that the "potential for liquefaction documentation was not provided". Liquefaction documentation was not requested.
- (3) Page 1-1, Section 1.1.2  
Please change sentence to read: "Adequate impoundment capacity to contain and pass the 100-year design storm without overtopping the dikes is currently present."
- (4) Page 1-2, Section 1.1.8  
The observation that trees eight inches and larger in diameter were left along the northern and eastern dikes was included in the observations that led to the POOR classification for this dam. Since ash pond dams in North Carolina fall under the jurisdiction of NCDENR and it is at the direction of NCDENR these trees remain, Progress Energy requests that this observation be removed from the justification of a POOR rating in this section.
- (5) Page 1-2, Section 1.2.1  
Since ash pond dams in North Carolina fall under the jurisdiction of NCDENR and it is at the direction of NCDENR that trees eight inches or greater in diameter remain, Progress

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Weatherspoon Steam Plant

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Lumberton, NC 28358

Energy requests that the recommendation to develop an action plan to address removing all trees be deleted. A Dam Repair Plan was approved by NCDENR. This plan addresses the areas of the embankment that do not meet minimum factors of safety standards.

(6) Page 1-3, Section 1.2.2

A Dam Repair Plan was approved by NCDENR. This plan addresses each of the recommendations listed in this section. The execution of this plan is scheduled to commence in July 2011.

**PART 2.0 DESCRIPTION OF THE COAL COMBUSTION RESIDUE MANAGEMENT UNIT**

(7) Page 2-2, Section 2.1, Figure 2.1 b

There is only one permitted ash pond at the Weatherspoon Plant. The reference to a northern and southern ash pond in this figure is misleading. These areas were differentiated in the inspection reports only to clarify the different characteristics in the two sections. Please remove these two labels.

(8) Page 2-2, Section 2.2.1, first sentence

Please delete the working "at the base of the stack."

**PART 3.0 SUMMARY OF RELEVANT REPORTS, PERMITS, AND INCIDENTS**

(9) Page 3-1, fourth bullet, first sentence

The areas in question are only along the northern and northeastern slopes. Please change the sentence to read: "Vegetation on the exterior slopes of the northern and northeastern dike has not been maintained due to the inactive conditions, and small and large trees have grown up on the slope."

**PART 4.0 SUMMARY OF HISTORY OF CONSTRUCTION AND OPERATION**

(10) Page 4-1, Section 4.2.1, first sentence

We request the word "reservoir" be removed from this sentence. This term may cause confusion with other reservoirs used by the company that have different purposes and are considered waters of the United States.

(11) Page 4-1, Section 4.2.1, first sentence

Delete the term "fly". Both fly and bottom ash is sluiced to the ash pond.

(12) Page 4-1, Section 4.2.1, second sentence

Delete "Ash Pond facility" and replace with "facility" to indicate the power plant.

(13) Page 4-1, Section 4.2.1, second sentence

Neither coal pile storm water runoff nor storm water from around the facility flow to the ash pond. These runoff flows go to the cooling pond.

(14) Page 4-1, Section 4.2.1, second sentence

We request the word "reservoir" be removed from this sentence. Use "ash pond" instead. This term may cause confusion with other reservoirs used by the company that have different purposes and are considered waters of the United States.

- (15) Page 4-1, Section 4.2.1, last sentence  
Change the word “unregulated”, which has defined permitting connotations to the word “passive”.

#### **PART 5.0 FIELD OBSERVATIONS**

- (16) Page 5-2, Section 5.2.2  
Please delete “and other wetland vegetation.”
- (17) Page 5-2, Section 5.2.3, first sentence  
The areas in question are only along the northern and northeastern slopes. Please change the sentence to read: “Areas of the northern and northeastern downstream slopes were eroding, in disrepair and had large trees established within the embankment.”
- (18) Page 5-2, Section 5.2.3, last sentence  
The Dam Repair Plan was approved by NCDENR. The plan will be implemented once all approvals are received.
- (19) Page 5-4, Section 5.3.2, first sentence  
Please delete “and other wetland vegetation.”

#### **PART 6.0 HYDROLOGIC/HYDRAULIC SAFETY**

- (20) Page 6-1, Section 6.1.2  
We request the word “reservoir” be removed from this Section. This term may cause confusion with other reservoirs used by the company that have different purposes and are considered waters of the United States.
- (21) Page 6-2, Section 6.1.4, last sentence  
Please change the term of “reservoir” to “pond” to be consistent with other reporting of this entity.

#### **PART 7.0 STRUCTURAL STABILITY**

- (22) Page 7-4, Section 7.1.5  
Liquefaction documentation was not requested.

#### **PART 8.0 ADEQUACY OF MAINTENANCE AND METHODS OF OPERATION**

- (23) Page 8-1, Section 8.1, first sentence  
We request the word “reservoir” be removed from this sentence. This term may cause confusion with other reservoirs used by the company that have different purposes and are considered waters of the United States.
- (24) Page 8-1, Section 8.1, first sentence  
Delete the term “fly”. Both fly and bottom ash is sluiced to the ash pond.
- (25) Page 8-1, Section 8.1, second sentence  
Delete “Ash Pond facility” and replace with facility.

- (26) Page 8-1, Section 8.1, second sentence  
Neither coal pile storm water runoff nor storm water from around the facility flow to the ash pond. These runoff flows go to the cooling pond.
- (27) Page 8-1, Section 8.1, second sentence  
We request the word "reservoir" be removed from this sentence. Use "ash pond" instead. This term may cause confusion with other reservoirs used by the company that have different purposes and are considered waters of the United States.
- (28) Page 8-1, Section 8.1, last sentence  
Change the word "unregulated", which has defined permitting connotations to "passive".
- (29) Page 8-1, Section 8.3.2, first sentence  
Inadequacy of maintenance was specifically targeting the northern and northeastern sections of the dike. Please add to the end of the first sentence: "...in the inactive northern and northeastern slopes of the ash pond."
- (30) Page 8-1, Section 8.3.2, last sentence  
No slope failures have occurred at this site. Please change the last word to read "degradation" instead of "failure".

#### **9.0 ADEQUACY OF SURVEILLANCE AND MONITORING PROGRAM**

- (31) Page 9-1, Section 9.1  
In addition to the annual inspection by Progress Energy, NCDENR conducts an annual inspection.

We certainly appreciate your attention to this matter. If there are any regulatory questions or requests for additional information, please contact Robin Bryson at (919) 546-3962 or [robin.bryson@pgnmail.com](mailto:robin.bryson@pgnmail.com). For any questions concerning technical aspects of the plan, please contact Rob Miller at (919) 881-3849 or [Robert.Miller2@pgnmail.com](mailto:Robert.Miller2@pgnmail.com).

With Regards,



Rick Grant, Plant Manager  
Weatherspoon Steam Electric Plant

RG/rb

cc: Robin Bryson  
Rob Miller

NOTE

Subject: EPA Comments on Progress Energy Carolinas Inc, Weatherspoon Steam Electric Plant, Robeson County, NC  
Round 9 Draft Assessment Report

To: File

Date: October 11, 2011

1. On p. ii, INTRODUCTION, SUMMARY CONCLUSIONS AND RECOMMENDATIONS, second paragraph, replace “As detailed in Section 1.2.5” with “As detailed in Section 1.2.2.”
2. On p. ii, INTRODUCTION, SUMMARY CONCLUSIONS AND RECOMMENDATIONS section, the report indicates that the technical documentation is inadequate. However, on p. 1-1, section 1.1.3, this statement is contradicted. Also on p. 6-2, Section, 6.2 ADEQUACY OF SUPPORTING TECHNICAL DOCUMENTATION, the report states “Supporting documentation reviewed by Dewberry is adequate.” On p. 7-4, section 7.2 ADEQUACY OF SUPPORTING TECHNICAL DOCUMENTATION, “Structural stability documentation is adequate.”
3. On p. ii, INTRODUCTION, SUMMARY CONCLUSIONS AND RECOMMENDATIONS, third paragraph, add a period at the end of the paragraph.
4. On p. 1-1, section 1.1.5, the report states that tree removal will “be coordinated at the direction of the North Carolina Department of Environment and Natural Resources (NCDENR).” However, on p. 1-2, section 1.1.8, the report states “Trees 8-inches and larger in diameter were left along the northern and eastern dikes **at the direction of NCDENR, but this also is a cause for concern.**” This statement in section 1.1.8 seems to imply that NCDENR is also part of the problem. If this is the case, section 1.1.5 should also include a statement relating to this, for consistency in the report.
5. On p. 2-3, section 2.2.1, remove “Active.” This facility does not appear to have active and inactive ash ponds.
6. Please label up front, each document in Appendix A.
7. Appendix A, Most of the attached documents are in draft form. Is there a final version for any of the documents?
8. The following was not addressed in the report for either pond: “Is any part of the impoundment built over wet ash, slag, or other unsuitable materials (like TVA)?” Please address for each Pond.

## MEMORANDUM

TO: Jana Englander

FROM: Jerry Strauss

CC:

Date: December 09, 2011

SUBJECT: PEC, Weatherspoon Steam Electric Plant, Response to Comments

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### EPA Comments:

- Ash Pond is now rated Fair (instead of Poor), since remedial measures (Dam Repair Plan) were taken at multiple locations along the dikes. We rate the pond Fair, instead of Satisfactory, because NCDENR continues to insist that large trees and shrubs be left on the dikes. Also one location has a 1.46 (and another has 1.51) Factor of Safety for static and a 1.01 FoS for seismic – which round to 1.5 and 1.0 for comparison with the standards and therefore do meet minimum Factors of Safety, but barely.
  - See Table 7.1, p 7-3 for a listing of all the improvements made at Weatherspoon as a result of EPA's site audit.
- The plant has completed remediating the dikes from a maintenance perspective. We hope this means they will improve their O&M procedures in the future.
- We are "stuck" with Draft versions. Final reports not provided.
- We state in Section 7.1.2 that the pond was not constructed over wet ash, slag, or other unsuitable materials.
- Editorial changes made.

### Utility Comments:

- We agree that documentation is now adequate
- Rating: see 1<sup>st</sup> EPA Comment above.
- Even if EPA does not specifically request liquefaction analyses, they are easy to perform and should be accomplished by the utilities.
- Editorial and minor technical corrections completed.